

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. **(Currently Amended)** A method of adapting a speech classification system, said method comprising the steps of:

providing ~~[[a]]~~ an input corresponding to speech to the speech classification system, the speech classification system including at least one structural parameter and at least one derived function~~[[;]]~~, wherein the speech classification system utilizes ~~utilizing~~ Gaussian mixture models that represent both a target model and a global model;

adapting the speech classification system via adapting the at least one derived function of the classification system; and

selecting a model set from the global model set that includes more than one Gaussian mixture model;

wherein the adaptation utilizes a multidimensional space that is based upon the selected model set;

wherein the speech classification system provides a classification output decision.

2. **(Original)** The method according to Claim 1, further comprising the steps of:
- providing a set of trained data; and
- obtaining a set of observation data.
3. **(Original)** The method according to Claim 1, wherein the at least one derived function of the classification system comprises at least one of: likelihoods and sets of likelihoods.
4. **(Currently Amended)** The method according to Claim 1, wherein said step of providing a speech classification system comprises providing a classification system configured for providing speaker verification.
5. **(Currently Amended)** The method according to Claim 4, wherein the at least one derived function of the speech classification system comprises at least one likelihood measure representing the likelihood of an acoustic utterance to be generated by a model.
6. **(Currently Amended)** The method according to Claim 1, wherein said adapting step comprises continuously adapting the speech classification system.
7. **(Currently Amended)** The method according to Claim 6, wherein said step of providing a speech classification system comprises providing a classification system configured for providing speaker verification.

8. **(Currently Amended)** The method according to Claim 7, wherein said adapting step comprises continuously adapting the speech classification system to new acoustic conditions.

9. **(Currently Amended)** The method according to Claim 8, wherein said step of continuously adapting the speech classification system comprises automatically detecting a new acoustic environment.

10. **(Currently Amended)** The method according to Claim 8, wherein the step of continuously adapting the speech classification system comprises satisfying a preset security level in verifying the claimed identity of a speaker.

11. **(Currently Amended)** An apparatus for adapting a speech classification system, said apparatus comprising:

an arrangement for obtaining [[a]] an input corresponding to speech and providing the input to the speech classification system, the speech classification system including at least one structural parameter and at least one derived function;

an arrangement for utilizing Gaussian mixture models that represent both a target model and a global model;

an arrangement for adapting the speech classification system via adapting the at least one derived function of the classification system; and

an arrangement for selecting a model set from the global model set that includes more than one Gaussian mixture model;

an arrangement for wherein the adaptation utilizes a multidimensional space that is based upon the selected model set;

wherein the speech classification system provides a classification output decision.

12. **(Original)** The apparatus according to Claim 11, further comprising:

an arrangement for obtaining a set of trained data; and

an arrangement for obtaining a set of observation data.

13. **(Currently Amended)** The apparatus according to Claim 11, wherein the at least one derived function of the speech classification system comprises at least one of: likelihoods and sets of likelihoods.

14. **(Currently Amended)** The apparatus according to Claim 11, wherein said speech classification system comprises providing a classification system configured for providing speaker verification.

15. **(Currently Amended)** The apparatus according to Claim 14, wherein the at least one derived function of the speech classification system comprises at least one likelihood measure representing the likelihood of an acoustic utterance to be generated by a model.

16. **(Currently Amended)** The apparatus according to Claim 11, wherein said adapting arrangement is configured for continuously adapting the speech classification system.

17. **(Currently Amended)** The apparatus according to Claim 16, wherein said speech classification system is configured for providing speaker verification.

18. **(Currently Amended)** The apparatus according to Claim 17, wherein said adapting arrangement is configured for continuously adapting the speech classification system to new acoustic conditions.

19. **(Currently Amended)** The apparatus according to Claim 18, wherein said adapting arrangement is configured for automatically detecting a new acoustic environment in continuously adapting the speech classification system to new acoustic conditions.

20. **(Currently Amended)** The apparatus according to Claim 18, wherein said adapting arrangement is configured for satisfying a preset security level in verifying the claimed identity of a speaker in continuously adapting the speech classification system to new acoustic conditions.

21. **(Currently Amended)** A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for adapting a classification system, said method comprising the steps of:

providing [[a]] an input corresponding to speech to the speech classification system, the speech classification system including at least one structural parameter and at least one derived function[[:]], wherein the speech classification system utilizes ~~utilizing~~ Gaussian mixture models that represent both a target model and a global model;

adapting the classification system via adapting the at least one derived function of the classification system; and

selecting a model set from the global model set that includes more than one Gaussian mixture model;

wherein the adaptation utilizes a multidimensional space that is based upon the selected model set;

wherein the speech classification system provides a classification output decision.